Commonwealth of Kentucky
Division for Air Quality

RESPONSE TO COMMENTS

CONDITIONAL MAJOR (DRAFT PERMIT) NO. F-06-018
DELTA AIR LINES, INC.
HEBRON, KY

July 6, 2006

RON SCHNEIDER, REVIEWER
Source I.D. #: 021-015-00062
Source A.I. #: 171
Activity #: APE20040001

SOURCE DESCRIPTION:

A Conditional Major permit application was received from Delta Air Lines, Inc. on June 25, 2001, and was complete on August 24, 2001. The permitted points are miscellaneous chemical usage, a 25,000 gallon underground gasoline storage tank, a 10.461 mmBtu/hr natural gas fired boiler, and a 1,000 kW diesel-fired emergency generator. Emissions from miscellaneous chemical usage are voluntarily limited by the permittee to attain conditional major status.

PUBLIC AND U.S. EPA REVIEW:

On May 25, 2006, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *The Boone County Recorder* of Florence, Kentucky. The public comment period expired 30 days from the date of publication.

Comments received:
Comments were received from Delta Air Lines, Inc. Attachment A to this document lists the comments received and the Division's response to each comment. Minor changes were made to the permit as a result of the comments received; however, in no case were any emissions standards, or any monitoring, recordkeeping or reporting requirements relaxed. Please see Attachment A for a detailed explanation of the changes made to the permit.

Public hearing:
During the public comment period, no request that a public hearing be held was received.

ATTACHMENT A

Response to Comments

Comments: on Draft Conditional Major Air Quality Permit submitted by Jeffrey R. Nobles, P.E., Project Manager, Environmental Services for Delta Air Lines, Inc. Responses by the Kentucky Division for Air Quality are included after each comment.

1) **Comment #1: MS01 Control Equipment**

Delta requests the description for MS01 in Section B of the permit be revised to reflect that MS01 does not include any control equipment *other than the paint filters used as part of the paint booth.* The draft permit omits the paint filters and paint booth.

Division Response:

The last segment of the description for MS01 has been changed from "No control equipment" to read "No control equipment other than the paint filters for particulate control of the paint booth."

2) **Comment #2: Paint Booth Compliance Demonstration Method**

There are two Compliance Demonstration Methods in the permit for the Miscellaneous Chemical Usage (MS01) Emission Unit. First, Condition 2.a. (under "Compliance Demonstration Method:") requires the use of particulate filters and operation in accordance with spray booth manufacture's (sic) recommendations. Next, Condition 2.b requires the use of a specified equation to "demonstrate that the particulate matter emissions are below the allowable limits…"

Delta comments that requiring both Compliance Demonstration Methods is unnecessary. The spray booth and spray gun in question are not physically able to cause 2.34 pounds of particulate matter per hour to be emitted. Conservatively, we estimate that the spray booth operation is not physically capable of emitting more than one half pound of particulate matter per hour (See attached emission calculation).

Additionally, demonstrating compliance using the equation is impractical and inconsistent with DAQ's treatment of similar sources. It is impractical because painting operations typically occur intermittently over several hours, and there is no practical way to measure the "Hourly material usage" required by the equation. Two sources previously permitted by DAQ were identified with similar surface coating operations, and the permits for these facilities do not require use of an equation to demonstrate compliance. These sources were the Fontaine Trailer Company (Permit F-04-010, 7/12/2004) and Trim Masters, Inc. (Permit F-03-020, Revision 2, 01/17/2006).

Finally, the equation will not accurately quantify PM emissions from the spray booth because it does not account for the capture efficiency of the spray booth particulate filters.

Accordingly, Delta requests that the compliance demonstration method based on the equation under Section B 2.b. be removed and replaced with language analogous to the language provided in the permits issued by the Division to Fontaine Trailer Company (Permit F-04-010, 7/12/2004) and Trim Masters, Inc. (Permit F-03-020, Revision 2, 01/17/2006).:

"Particulate emissions shall be considered to meet limitations in 2(a) and (b) above when the spray booth filters are in place and in good condition."

Division Response:

The requested changes have been made.

3) **Comment #3: Gasoline UST Throughput Demonstration**

Condition 4.a and 5.ai. of Section B related to source "02 (4069) 25,000 gallon (94.6 M3) Underground Gasoline Storage Tank" requires Delta keep to (sic) records of the total amount of gasoline delivered during each month. Although gasoline deliveries may not occur every month, Delta intends to use the delivery records as the basis for demonstrating that the monthly average gasoline throughput is equal to or less than 25,000 gallons per month (conditions 4.b and 5.a.ii). The gasoline shipments will be averaged over the course of a year to calculate the monthly average throughput.

Division Response:

It is understood that the average monthly throughput is calculated on an annual basis. This condition is included to preclude the applicability of Regulation 401 KAR 59:174, and the conditions for exemption outlined in Section 9 of that regulation should be verifiable by these records.

4) **Comment #4: Purchase Orders and Invoice Equivalency**

Condition 2.a of Section D provides 12-month rolling total limits for volatile organic compounds (VOC) and hazardous air pollutants (HAPs). Under Compliance Demonstration Method, condition b.4 requires the retention of all purchase orders and invoices for materials containing VOC and HAPs and that these documents be made available for inspection upon request. Delta uses an electronic Business-to-Business purchasing system, and material ordering and invoicing are conducted electronically. Therefore, physical copies of purchase orders and invoices may not be readily available upon inspection, and Delta proposes that this condition be revised to include an equivalency clause, allowing Delta to demonstrate compliance using its electronic purchasing system.

Division Response:

It is understood that purchase orders and invoices are acceptable in electronic format as long as the materials being purchased and quantities are clearly discernable from the records. Such electronic records should be available for printout upon request.

5) **Comment #5: Startup, Shutdown, and Malfunction Applicability**

Section F, Condition 7. requires the owner/operator to notify the Regional Office concerning startups, shutdowns, or malfunctions pursuant to 401 KAR 50:055, Section 1, subsections (2) and (3). However, the remaining, substantive portions of 401 KAR 50:055 (subsections (1) and (4)) are not included in the permit. These provisions allow for certain emissions in excess of air quality standards that are due to startups, shutdowns, and malfunctions. Delta thereby requests that Subsections (1) and (4) of 401 KAR 50:055, Section 1 be added to the permit to incorporate 401 KAR 50:055, Section 1 in its entirety.

Division Response:

Section F contains standard conditions applicable to all Conditional Major facilities. It has been through a thorough legal review and has been approved by our legal counsel. These conditions are the same on all Conditional Major permits and will not be changed. 401 KAR 50:055 is a general compliance requirement regulation applicable to every source.

Delta Air Lines, Inc.
CVG Paint Booth PM Emissions
Prepared: 6/23/2006

Paint Density 13.34 pounds of paint/gallon of paint Based on PG-4-W1 Base (Highest Solids Paint). Conservative because "as applied"
density will be lower.
Paint Percent Solids 87% solids mass percent Based on PG-4-W1 Base. Conservative because "as applied" solids content will be
lower.
Paint Solids Content 11.61 pounds of solids/gallons of paint Calculated as (Paint Density) x (Paint Percent Solids)
20 fluid ounces/minute Based on highest HVLP paint flow rate data found in "ABC's of Spray Finishing"
published by DeVilbiss
9.38 gallons of paint/hour Calculated based on unit of measure conversions stated below
125.06 pounds of paint/hour Calculated as (Paint Feed Rate in gallons/hour) x (Paint Density)
Solids Feed Rate 108.80 pounds of solids/hour Calculated as (Paint Solids Content in pounds/gallon) x (Paint Feed Rate in
pounds/hour)
Transfer Efficiency 25% percent Worst case (lowest) transfer efficiency given in AP-42 Section 4.2.2.8 "Automobile
and Light Duty Truck Surface Coating Operations"
Filter Capture Efficiency 99.5% percent Based on paint filter manufacturing data
Overspray 81.60 pounds of solids/hour Calculated as (Solids Feed Rate in pounds/hour) x (1 - Transfer Efficiency)
Solids Captured by Filters 81.20 pounds of solids/hour Caluclated as (Overspray in pounds/hour) x (Filter Capture Efficiency)
Solids Emitted **0.41** pounds of solids/hour Caluculated as (Overspray) less (Solids Captured by Filters)

Unit of Measure Conversions

128 fluid ounces/gallon
60 minutes/hour
Paint Feed Rate
Conservative potential PM emissions of
paint booth operations are less than 2.34
pounds/hour allowable.